

REMARKS

The non-final Office Action issued April 29, 2004 has been reviewed and the comments of the U.S. Patent and Trademark Office have been considered. Claim 54 was canceled in the amendment filed February 6, 2004. Claims 42 and 48 have been canceled without prejudice or disclaimer in the amendment filed April 14, 2003. Claims 10-13 and 21-30 have been canceled without prejudice or disclaimer in the amendment filed January 11, 2002, and claims 31 and 32 have been canceled without prejudice or disclaimer in the amendment filed September 03, 2002. Accordingly, applicants request reconsideration and allowance of the pending claims 1-9, 14-20, 33-41, 43-47, and 49-53.

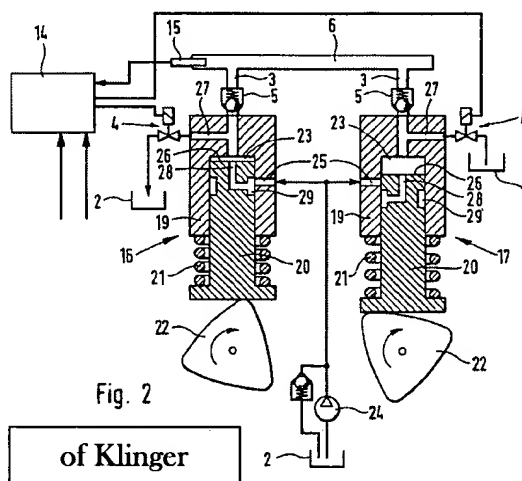
Applicants thank the Examiner for indicating that claims 4, 14-20, 33-41, 43-44, 46, 47, and 49-53 are in condition for allowance.

Claim 45 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,095,118 to Klinger *et al* ("Klinger") in view of U.S. Patent No. 5,878,718 to Rembold *et al* ("Rembold"). Insofar as the rejection is applicable to amended claim 45, applicants respectfully traverse this rejection because the proposed combination of Klinger in view of Rembold fails to teach or suggest the claimed invention as a whole, as recited in claim 45.

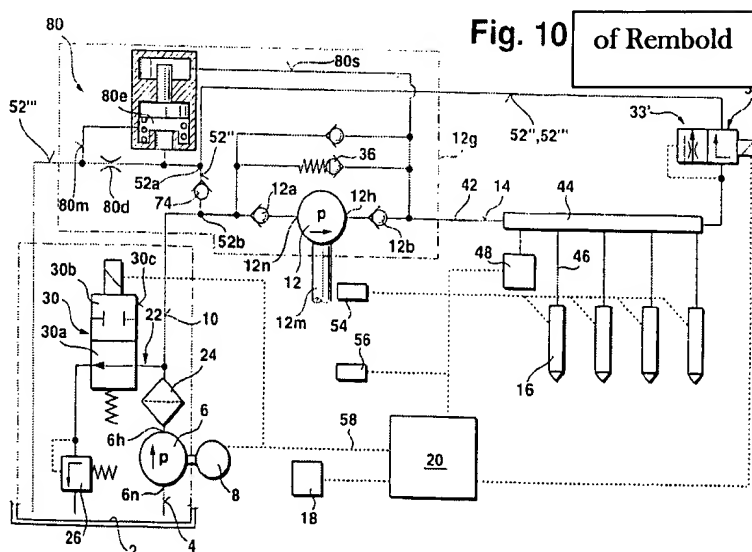
Amended claim 45 recites a high pressure fuel injection system that includes, *inter alia*, a fuel return line connecting the fuel rail to a low pressure side of a high pressure pump. The high pressure piston pump includes a housing having a low pressure fuel inlet connected to an output of a low pressure pump. The high pressure piston pump has a high pressure fuel outlet connected to an input of a fuel rail with at least two pistons disposed in the housing, and normally open bypass valve fluidly connected from a discharge passage of one of the at least two pistons to a low pressure side passage of the one piston such that the one piston is deactivated. Support for this amendment to the claim is provided in the originally filed application at, for example, page 5, lines 23-32, page 6, lines 25-34, and Figures 3 and 4.

The Office Action concludes that, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the fuel system of Klinger to incorporate a fuel return line for Klinger based on Rembold.

Applicants respectfully submit that there is no motivation or suggestion to modify a returnless fuel system of Klinger with a return line of a return type fuel system such as one shown and described in Rembold. Klinger shows in Figure 1 and describes at column 2, lines 30-36, that a high pressure pump 1 aspirates fuel from fuel tank 2 into a fuel reservoir 6 for fuel injection valves 9. Klinger shows a fuel reservoir 6 without a return line with check valves 5 to maintain a set fuel pressure. That is, Klinger operates principally by maintaining fuel at a set pressure within the reservoir 6 of Klinger and that other than the injection of the fuel in the reservoir 6, any pressure reduction in the reservoir 6 is not provided for by Klinger, and actually prevented by



check valves 5 in Klinger. Rembold, on the other hand, shows a fuel system, in Figure 10 (reproduced below) with a return line so that the fuel pressure can be relieved in a fuel storage chamber 44 without injecting such fuel into an engine. One of ordinary skill in the art would not have been motivated or suggested to modify a returnless fuel system of Klinger that does not allow pressure in a fuel reservoir 6 to be reduced without injection of fuel based on the teachings of a return fuel type fuel system of Rembold that does allow fuel pressure to be reduced without injection of fuel, as such modification would change the principle operation of Klinger. Where a modification to a prior art invention could change the principle operation of a prior art invention, then there is no suggestion or motivation to make such modification. See MPEP 2143.01 (8th Ed., Rev. 2, May 2004). Accordingly, claim 45 is patentable over Klinger in view of Rembold, whether considered alone or in combination thereof.



Moreover, Klinger, fails to show or describe that the magnet valve 4 provides a normally open bypass flow between a discharge passage and a low pressure passage of one of the pumping elements 16 and 17 to deactivate one of the two pumping elements 16 and 17. Rembold also fails to cure this deficiency. In particular, Rembold, shows in Figure 10 (reproduced above) and describes at column 4, lines 28-38, a second pump 12 with one-way spill valve 36 is disposed between a high pressure side 12h and a low pressure side 12n. The one-way spill valve 36 of Rembold, however, is stated as "normally closed." Thus, even if Klinger could be modified by Rembold, the proposed combination fails to show or describe all of the claimed features. Accordingly, claim 45 is patentable over Klinger, alone or in combination with Rembold, for at least these reasons.

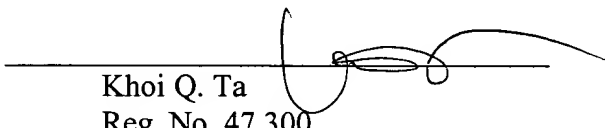
Except for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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